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## ABSTRACT

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BEHAVIORAL MEASUREMENT OF SOCIAL ADJUSTMENT :

WHAT BEHAVIORS? WHAT SETTING?

Kathryn Kuehnle, Stanley L. Deno, and Phyllis K. Mirkin.

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July, 1982

### Abstract

Observations were conducted to identify student behaviors that relate to students' social functioning, defined first as social status within the group and second as behavior problems perceived by the teacher. Fifty-four fifth grade boys and girls, from seven classrooms that were organized into two units, were observed over a 10-week period during both informal and formal school periods. The results indicated that both sex and setting contributed to the strength of the relationship between student behavior and both measures of social functioning. Peer approaches were related consistently to social status in one setting for both boys and girls, but only for girls in the other setting. While problem behaviors related to teacher ratings of girls in one setting, aggression was the predictor of teacher ratings of boys in that same setting. The implications of the results for monitoring a student's social growth within classrooms are discussed.

## Behavioral Measurement of Social Adjustment:

### What Behaviors? What Setting?

As children in educational settings spend more time with other students, the impact of peer interaction increases. Naturalistic observation reveals that from two to five years of age, social participation within the peer group changes both quantitatively and qualitatively (Parten, 1932). As participation increases, prosocial behavior such as associative and cooperative play develops (Hartup, 1970). In fact, Hartup (1976) suggests that the amount of peer interaction may affect a child's prosocial development.

Because peer interaction may contribute substantially to the social development of children, successful social experience appears essential; however, many children do not enjoy successful social experiences within their peer groups. Gronlund (1959) found that approximately 6% of third through sixth grade children had no friends within their classroom as measured by sociometric questionnaires. More recently, Hymel and Asher (1977) documented that 11% of children received no friendship nominations. These findings raise concern not only because a lack of friendship may reduce day-to-day socialization experiences, but also because it may have long-range negative consequences.

Putallaz and Gottman (1981) reported that peer acceptance is an indicator of psychological risk. Childhood social isolation has been found to predict juvenile delinquency (Roff, Sells, & Golden, 1972) as well as emotional and mental health problems in adulthood (Cowen, Pederson, Babigian, Izzo, & Trost, 1973; Kohn & Clausen, 1955).

Research by Cowen et al. (1973), Ullman (1957), and others

indicates that social success is related not only to adjustment in later life but also to academic success. Research on the academic functioning of children with social problems and, conversely, the social functioning of children with academic problems, suggests a relationship between academic and social functioning (Goodman, Gottlieb, & Harrison, 1972; Gottlieb & Budoff, 1973).

Social functioning assumes even greater significance for mainstreamed children who carry the learning disabled (LD) label. Bryan (1974, 1978) found that children identified as LD were lower in social standing than their normal peers, and more often were ignored by their peer group when attempting to interact socially. In order to study the peer interaction, social functioning, and psychological health of LD and other children, behavioral concomitants of social status must be identified.

#### Identifying Behavioral Concomitants of Social Status

Because children's social status appears to be an important variable in personal adjustment, the identification of children's status positions is of continuing interest. A criterion measure of social status that has emerged within the research, for purposes of identifying children "at risk," is that of sociometric status. The sociometric method utilizes, as a criterion assessment variable, peer nominations or ratings of children as socially acceptable or unacceptable. While this device measures the degree of social acceptance, rejection, or isolation a child experiences, it is time consuming and awkward to administer, as well as temporally restricted, situationally bound, and indirect. Therefore, a search for behavioral

measures or concomitants of social status has ensued. Such searches have employed a criterion-related validity paradigm, exploring differences among groups of varying social status (Kupke, Hobbs, & Cheney, 1979) to identify the behaviors associated with high status.

Most of these criterion validity studies have cast the problem in behavioral terms. Within many investigations, interpersonal skills such as positive attention and cooperation have been identified as generalized positive reinforcers, while noncompliance and physical aggression have been identified as punishers. Most studies reported significant differences in the behaviors of popular and unpopular preschool children. Popular children emitted more positive behavior toward peers, while rejected children emitted more negative behavior toward peers (Hartup, Glazer, & Charlesworth, 1967; Marshall & McCandless, 1957). Additionally, these studies demonstrated a process of reciprocity in interpersonal interaction. Children emitting high levels of positive behavior received high levels of positive behavior; conversely, children emitting high levels of negative behavior received high levels of negative behavior.

Thus, for the young child, behavioral concomitants of social status are concrete and identifiable. Yet, as age increases and social meanings diversify, the problem of identifying behaviors associated with positive social functioning becomes more difficult; this difficulty is reflected in research from social skills intervention programs. The intervention research indicates that the frequency of positive and negative initiations and responses by a child does not differentiate accepted from rejected children at the



4.  
elementary age level and above (Oden & Asher, 1977).

Problems inherent in identifying the behavioral concomitants of social status may be due to the multidimensionality of social status and the complexity of peer interactions with increasing age. Additionally, there are methodological problems. Typically, behaviors are labeled as either reinforcers or punishers simply by observing their topographic properties rather than by taking into account their effect on the behavior of others. Technically, a contingent stimulus qualifies as a reinforcer or punisher if it has an effect on the probability of a behavior. However, few studies have included within their observational schemes such a technically correct, empirical validation of a behavior as a reinforcer or a punisher.

#### Identifying a Behavioral Index of Social Status: A Functional Focus

Within a functional analysis of social interaction, the individual's behavior is viewed as a potential conditioned reinforcer or punisher for his or her peers. If low status children, in fact, do not reinforce their peers' approaches effectively and sometimes even punish them, we may hypothesize that these individuals will be rejected by their peers and spend more time alone. Thus, if we direct our attention away from the topographical definitions of a student's behavior toward redefinition in terms of peer response to the target child, we may achieve a relevant behavioral measure of a child's social status.

#### Purpose of Study

The present study was designed to determine whether easily observed behaviors could be identified that closely relate to a

student's social status or classroom adjustment at the elementary grade level. In a previous study, Deno, Mirkin, Robinson, and Evans (1980) attempted to find such behaviors that could be used routinely to measure an LD child's social adjustment. The results of that study revealed that the frequency of peer-to-target initiations correlated with the target child's social status. However, differences across groups were obtained in the strength of this relationship. Therefore, before using such data as a measure of social adjustment, validation and extension of those results are warranted. If simple behavioral observations do predict social adjustment, then repeated observations could be used to monitor the effects of special education programs on a student's social status.

#### Method

##### Subjects and Setting

The study was conducted in seven classrooms in a midwestern urban public school where 26.4% of the student population were minorities, 10.5% of the families received AFDC, and 68.0% of the students resided with both natural parents. This continuous progress school was composed of blended classrooms of fourth, fifth, and sixth grade students. Thus, little designation was given to grade placement within the school. A further structural designation of this school included the composition of classrooms into units. Unit 1, composed of three classrooms, and Unit 2, composed of four classrooms, were included in the present study. While children within different classrooms within the same unit were familiar with each other, children in different units generally were unfamiliar with each other.

Subjects in the present study were 54 students. This sample included 29 fifth-grade boys and 25 fifth-grade girls. The average age of the subjects was 10 years.

### Measures

Sociometric instruments. A roster and rating sociometric instrument and a peer nomination procedure were used to measure students' acceptance, rejection, or isolation by their peer group. The roster and rating instrument is a five-point Likert-type scale on which group members rate how much they like other individuals (see Appendix A). The peer nomination procedure asks children to generate the names of the three children they "like the best" and three children they "like the least." Test-retest reliability for the liked-best nomination and liked-least nomination instruments and the rating procedure have ranged from .69 - .86 and .77 - .86, respectively (Hymel & Asher, 1977; Oden & Asher, 1977).

School Behavior Profile. The School Behavior Profile (Balow & Rubin, 1974) is a 58-item behavior rating scale on which the classroom teacher rates a child's behavior as observed in routine school activities. An overall score is obtained, indicating the general level of problem behavior demonstrated by the child (the lower the score, the greater the extent to which the child is considered to exhibit problem behavior). Three factor scores, Poor Control, Developmental Immaturity, and Anxious-Neurotic Behavior, may be obtained to indicate the particular type of problem behavior a child demonstrates. (Rating directions and examples of items are in Appendix B.)

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Behavioral measures. Six behaviors were selected for observation across a structured academic setting. Descriptions of these behaviors follow:

(1) Noise

- (a) Verbal noise: Yelling, shouting, screaming, growling, grunting, or other loud, distracting sounds.
- (b) Nonverbal noise: Pencil tapping, finger snapping, banging on objects, or other loud, distracting physical noises. (The decision to code was based on the appropriateness of the behavior to the activity in the classroom.)

(2) Out of place: Movement beyond explicitly or implicitly defined boundaries of the classroom, including trips to the drinking fountain, bathroom, or any place away from a student's desk (except to the teacher).

(3) Target aggression: Negative physical behavior by the subject directed toward another person, another person's property, or property in general, including kicking, hitting, or pushing a peer, tearing or breaking a peer's possessions, taking a peer's possessions without permission. (The decision to code was based on the topography of the behavior and not the intent.)

(4) Peer aggression: (Definition is the same as the category of "target aggression," with the peer as the initiator or responder.)

(5) Peer initiation: Physical or verbal behavior directed by peer toward the target, including verbal statements, smiles, waves, physical contact, head nodding, and hand signals that represent verbalizations.

(6) Off-task-alone: Any movement deviating from a prescribed activity that does not fall into the previously defined categories of out-of-place, target or peer aggression, or initiation by peers, including off-task looking around, staring into space, doodling, or any observable movement from the task at hand that is emitted for 5 seconds or longer. (The decision to code was based on the topography of the behavior. When target's gaze was directed away from speaker during times when the target's task was to listen; behavior was coded off-task-alone; during seat work if target's gaze was directed away from his/her paper, the behavior was coded off-task-alone.)

The behaviors selected for observation across an unstructured non-academic setting were:

(1) Noise

(a) Verbal noise: Yelling, shouting, screaming, growling, grunting, or other loud distracting sounds.

(b) Nonverbal noise: banging on objects or other loud, distracting physical noises. (The decision to code was based on the appropriateness of the behavior to the activity in the classroom.)

(2) Target Aggression: (Definition is the same as that in the structured academic setting.)

(3) Peer Aggression: (Definition is the same as that in the structured academic setting.)

(4) Peer Initiations: (Definition is the same as that in the structured academic setting.)

(5) Alone: Activities engaged in by the target alone, including playing a game or working on a project in isolation during a free time period. (The decision to code was based on the lack of physical or verbal interaction by the target with peers; the target may have been near a group of peers and still the behavior may have been coded alone.)

These behavioral categories were based on observational systems developed previously and reported elsewhere (Deno, 1980; Deno et al., 1980).

Procedure

Observer training. Prior to data collection, two observers were trained on videotapes and in-vivo classroom settings until their agreement was at least .90 across all observation categories. Training continued throughout the study to control for observer drift. Prior to daily classroom observation, each category was defined. Additionally, during daily post-observation meetings with the two

observers, questions concerning how to code behavior that had been observed were discussed. Training also was intermittently continued on the videotapes throughout the study. The reliabilities during the continued training ranged from .80 to 1.00 across observational categories.

The two observers spent one week introducing themselves to the target settings in an attempt to reduce subject reactivity to their presence. Additionally, to control for spuriously inflated reliability, the two observers were assigned to collect data simultaneously within the same classroom. During 25% of the one-minute observations, both observers collected data on the same child. These reliability checks were scattered randomly throughout the subject observation schedules. Observers were blind as to when these checks were occurring. Throughout the study, observers also were blind as to the study's purpose and hypothesis.

Observational data collection. Behavioral data were collected within seven fifth-grade classrooms. A total of 29 fifth-grade boys were observed over 10 weeks during three separate periods: a morning free time period prior to the official start of school, an unstructured lunch period when the students ate in their homerooms, and a structured academic reading period. Because of time constraints, a total of 25 fifth-grade girls were observed over the same 10-week period only during structured academic reading. Although class size ranged from 28 to 31 students during observation periods, the number of students under direct observation never exceeded 7 during free time and lunch, and never exceeded 14 during the academic

reading period.

Class members to be observed were listed in an arbitrary order on the daily observation forms (see Appendix C). An event recording system was used by the observers who moved through the list of names, observing each student for 60 seconds, with a 5-second break between students. A tape recorder and ear plugs with 20 foot extensions were used for notifying observers of the time interval; specifically, the tape gave the direction, "Look one," indicating that the first subject was to be located visually, and five seconds later, it gave the direction, "One," indicating that the observation for the first subject on the observation sheet was to begin. After a 60-second interval, directions for subject two were provided: "Look two," the 5-second pause, and "Two." The tape reiterated through this procedure 45 times.

During each 60-second observation interval, behavior was coded simultaneously on the five categories for the nonacademic periods and the six categories for the academic periods. Two behaviors within a category were coded during one interval if a 5-second break clearly separated the behaviors.

An average of 33 minutes of observation data per student was collected across free time and lunch periods for the fifth-grade boys over ten weeks. An average of 37 minutes of observation data per student was collected across the fifth-grade boys and girls during their daily reading period over the same 10 weeks.

Administration of the School Behavior Profile. Prior to the behavior observations, the seven classroom teachers completed the

58-item School Behavior Profile on each of the 197 students in the two administrative units in which observations occurred.

\* Administration of the sociometric measures. Following nine weeks of observational data collection, the two sociometric measures were administered individually to those members of the student population who had received parental permission to participate. Examiners were trained through a structured administration format to ensure consistency of procedures (see Appendix D).

The roster and rating scale required students to rate all other students in their homeroom on a 1-5 scale in terms of how much they liked to "play with" that student. All class members' names were listed on the sociometric form regardless of their participation so as not to alter the natural distribution of ratings and nominations distributed by participating group members. Before rating their classmates, a practice session was conducted to ensure that the students understood how to use the rating scale.

While the roster and rating scale asked students to rate all other classmates, the peer nomination procedure asked the students to indicate the three children listed on the roster and rating scale whom they "liked the best" and to indicate the three children whom they "liked the least." Because of the school's continuous progress structure, homerooms included fourth, fifth, and sixth-grade students. Therefore, cross-grade ratings and nominations between fourth, fifth, and sixth grades were obtained.



### Results

Correlations between the social status variables (the sociometrics and the teacher behavior ratings) and the observational variables were analyzed separately for boys and girls in each unit.

#### Relations Between Sociometrics and Observational Variables

In Unit 1, five statistically significant relations were obtained for boys (see Table 1). The observational variable for four of these was Peer Initiations. Within informal settings (free time and lunch), Peer Initiations was related positively to best-liked nominations and negatively related to least-liked nominations. Within academic settings (reading), Peer Initiations was related positively to both best-liked nominations and peer roster ratings. The fifth significant relation was between Peer Aggression and best-liked nominations, with Peer Aggression relating positively to best-liked nominations. The strength of this latter relationship was somewhat greater than the strength of the relationships between Peer Initiations and the sociometrics.

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Insert Table 1 about here  
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For girls in Unit 1, three statistically significant correlations were obtained within the academic setting (girls were not observed within informal settings). Two of the significant relations were the same as those found for boys in the academic setting: Peer Initiations with best-liked nominations and Peer Initiations with peer roster ratings. The other significant relation involved a composite

behavior referred to as Problem Behaviors, which included Noise, Out of Place, and Alone-Off-Task. This composite was related negatively to peer roster ratings.

In Unit 2, eight reliable correlations were obtained (see Table 1). The pattern of correlations differed from those for Unit 1, however. Of three statistically significant correlations for the boys, all involved behavior emitted by the target student. As Problem Behaviors increased, best-liked nominations decreased and least-liked nominations increased. Somewhat in contrast, the Target Aggression category related positively to best-liked nominations.

For the girls in Unit 2, five behavioral categories related to the sociometric variables. As it was for the boys in Unit 1, Peer Aggression was indicative of social status. Increased Peer Aggression related to higher peer roster ratings, and a lower number of least-liked nominations. Target Aggression related positively to peer roster ratings, and, like Peer Aggression, negatively to least-liked nominations. Finally, as with the boys in their unit, an increase in Problem Behaviors was associated with a higher number of least-liked nominations. In contrast to Unit 1, Peer Initiations was not related reliably to any of the social status measures.

#### Relations Between Teacher Ratings and Observational Variables

Behavioral relationships with teachers' ratings on the School Behavior Profile also were examined. Observational data were correlated with the total score as well as with the three factors--Poor Control, Developmental Immaturity, and Anxious-Neurotic Behavior. Table 2 is a list of the significant correlations that were

found between the observational variables and the teachers' ratings.

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Insert Table 2 about here  
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Of the 16 statistically significant correlations obtained between the behavioral variables and the teachers' ratings across the two units, 14 involved behavior emitted by the target student rather than the peers. Of interest, however, is that both Target Aggression and Problem Behaviors generally were inversely related to the teachers' ratings on the School Behavior Profile. Since low ratings represent greater behavior problems, these results contrast with the findings regarding social status where increased Problem Behaviors were related to lower sociometric scores, but increased Peer and Target Aggression were related to higher sociometric scores.

As with the social status correlations, the results for the teachers' ratings differed for the two units. For the boys, increased Target Aggression related to decreased teacher ratings in Unit 1, whereas Problem Behaviors related to decreased teacher ratings in Unit 2. For the girls in Unit 1, unlike their opposite sex peers, Aggression (Peer & Target) was positively related to teacher ratings and Problem Behaviors related negatively to teacher ratings. Problem Behaviors also were related negatively to teacher ratings for the girls in Unit 2, as were Peer Initiations.

#### Discussion

The purpose of this study was to identify students' behaviors that relate to social functioning, defined first as social status

within the peer group, and second as behavior problems perceived by the teacher. The hope was that if observable behaviors could be identified that relate to students' social functioning, then those behaviors could be measured routinely to continuously evaluate the social behavior effects of special education programs.

The criterion measures for social status within the peer group were sociometrics. Within one unit, Peer Initiations and Peer Aggression predicted scores on the sociometrics both for boys and girls. In this study, then, peer behavior toward the target child was indicative of social status. Of interest is that, in addition to peer initiations, peer behavior coded as aggressive related positively to social status. Perhaps the simplest explanation for this lies in the coding system definitions and the observer training. No effort was made to judge a peer's intent when a behavior was coded as aggressive. Behaviors such as "hitting," "pushing," or "taking a peer's possessions without permission" were coded as peer aggression. In many situations these behaviors would better be classified as initiations rather than aggressions. Thus, both initiations and aggressions in this study could be interpreted as approach responses from peers to target students.

While the results lend support to the notion that social status can be measured by observing peer approaches to a student, evidence also can be found that behavior emitted by the target student indexes social status. When Noise, Out-of-Place, and Off-Task-Alone are collapsed into a "Problem Behavior" category, mid-range correlations are obtained with sociometric scores. These correlations were found

when observations were made during structured academic time rather than unstructured lunch and free time periods. The directions of these relationships were consistent. Increased "problem behavior" is associated with more "least-liked" nominations, fewer "best-liked" nominations, and lower roster ratings. This was more clearly evident in the unit where behavior control by the teachers was judged by the observers to be less successful. In that same unit, aggressive behavior by the target actually related positively to "best-liked" nominations and roster ratings, and related negatively to least-liked nominations.

The results with respect to teacher ratings of school behavior contrast sharply with the sociometric results. Although peer behavior toward the target student was a fairly consistent indicator of a student's status within the peer group, the target student's behavior more often predicted teacher ratings. As might be expected, with a few exceptions, teachers rated students lower if they emitted higher rates of aggression and problem behavior.

The present results provided evidence for both sex and setting as contributors to the strength of relationship between student behavior and both social status and teacher perception. Differences in the patterns of correlation existed between boys and girls across settings. While peer approaches were related consistently to social status in one setting for both boys and girls, they were related only for girls in the other setting. And while problem behaviors clearly related to teacher ratings of girls in one setting, aggression was the consistent predictor of teacher ratings of boys in that same setting.

The results from this study demonstrate that relationships exist between observational variables and criterion social functioning measures. A substantial number of statistically significant correlations were obtained. Most of those correlations were mid range, although a few were mid to high range. In social behavior research, correlations are often moderate to low; therefore, the size of the relationships demonstrated here seem noteworthy. These correlations were computed on small sample sizes, a fact that may help to explain the variations in correlations across behavior and setting. At the same time, when statistically significant relationships are obtained with small samples, confidence is increased that the strength of relationship is substantial.

The implication of the present results is that easily observed behaviors do index students' social functioning in school. The behaviors could be measured repeatedly to monitor a student's social growth within classrooms. The observed behaviors included both general classroom conduct and social interaction. The problem to be solved is how to identify those specific behaviors, from the total set, that index a particular student's social adjustment. A simple strategy would be to use the teacher's referral or identification of a student as a basis for conducting an observation using all the behavior categories employed in this study. If observation of a normative peer sample (Deno, 1980; Walker & Hops, 1976) was conducted simultaneously, then the significant behavioral discrepancies for the

referred student could be identified. Data on those discrepant behaviors might then be used to plan and evaluate the effects of special education programs.

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Table 1  
Statistically Significant Correlations Between  
Sociometrics and Observational Variables<sup>a</sup>

Unit	Sex	Setting	Variables		r
			Social Status	Observational	
1	Boys	Informal	Best-liked Nominations	Peer Initiations	+.44
			Least-liked Nominations	Peer Initiations	-.44
		Academic	Best-liked Nominations	Peer Initiations	+.43
			Peer Ratings	Peer Initiations	+.49
			Best-liked Nominations	Peer Aggression	+.60
	Girls	Academic	Peer Ratings	Problem Behaviors <sup>b</sup>	-.48
			Best-liked Nominations	Peer Initiations	+.59
			Peer Ratings	Peer Initiations	+.47
2	Boys	Academic	Best-liked Nominations	Problem Behaviors <sup>b</sup>	-.49
			Least-liked Nominations	Problem Behaviors <sup>b</sup>	+.55
			Best-liked Nominations	Target Aggression	+.76
	Girls	Academic	Least-liked Nominations	Problem Behaviors <sup>b</sup>	+.51
			Least-liked Nominations	Target Aggression	-.65
			Peer Ratings	Target Aggression	+.59
			Least-liked Nominations	Peer Aggression	-.50
			Peer Ratings	Peer Aggression	+.65

<sup>a</sup>All correlations included in table were significant at  $p \leq .05$ .

<sup>b</sup>Composite of Noise, Out-of-Place, and Off-Task-Alone.

Table 2  
Statistically Significant Correlations Between  
Teacher Ratings and Observational Variables<sup>a</sup>

Unit	Sex	Setting	Variables		r
			Teacher Rating	Observational	
1	Boys	Academic	Total Score	Target Aggression	-.45
			Poor Control	Target Aggression	-.44
			Immaturity	Target Aggression	-.40
			Anxious-Neurotic Behavior	Target Aggression	-.41
	Girls	Academic	Total Score	Problem Behaviors <sup>b</sup>	-.50
			Poor Control	Problem Behaviors <sup>b</sup>	-.50
			Immaturity	Problem Behaviors <sup>b</sup>	-.49
			Poor Control	Target Aggression	+.46
			Anxious-Neurotic Behavior	Peer Aggression	+.52
2	Boys	Academic	Total Score	Problem Behaviors <sup>b</sup>	-.58
			Poor Control	Problem Behaviors <sup>b</sup>	-.49
			Immaturity	Problem Behaviors <sup>b</sup>	-.50
			Anxious-Neurotic Behavior	Problem Behaviors <sup>b</sup>	-.56
	Boys	Informal	Poor Control	Target Alone	+.50
	Girls	Academic	Poor Control	Peer Initiations	-.59
			Poor Control	Problem Behaviors <sup>b</sup>	-.66

<sup>a</sup>All correlations included in table were significant at  $p \leq .05$ .

<sup>b</sup>Composite of Noise, Out-of-Place, and Off-Task-Alone.

## APPENDICES

# APPENDIX A Roster and Rating Instrument

How much do you like to play with the following students in your class?



1. _____	1	2	3	4	5
2. _____	1	2	3	4	5
3. _____	1	2	3	4	5
4. _____	1	2	3	4	5
5. _____	1	2	3	4	5
6. _____	1	2	3	4	5
7. _____	1	2	3	4	5
8. _____	1	2	3	4	5
9. _____	1	2	3	4	5
10. _____	1	2	3	4	5

## APPENDIX B

### Directions and Example of Items from the School Behavior Profile

#### Rater Directions

The items... are descriptive terms that apply to many children. Each item can be answered from your observations of the child in question; do not try to compare the child to other children.

Please circle the letter (or groups of letters) for "Almost Always," "Often," "Seldom," or "Almost Never" according to the frequency with which the child shows the particular behavior in school.

IT IS IMPORTANT THAT A SINGLE RESPONSE BE CIRCLED FOR EACH ITEM. Do not leave any blanks. If you wish to qualify your responses, please do so in the space reserved for Rater Comments.

#### Examples of Items

1. Sluggishness, lethargy
7. Speech unintelligible
14. Distracted by sights and sounds in classroom
21. Crying over minor annoyances and hurts
28. Fights with other children
35. Boisterousness, rowdiness
42. Social withdrawal, prefers solitary activities
49. Irritability; hot-tempered, easily aroused to anger
56. Tires easily

Academic

One Minute  
Interval

Child's Name

Noise

Out of  
Place

Physical  
Aggression  
by Subject

Physical  
Aggression  
by Peer  
to Subject

Initiations  
by Peers  
to Subjects

Alone  
Off-Task

6







7







8







9







10







Daily Observation Form

APPENDIX C

## APPENDIX D

### Sociometric Administration Procedures

Each student will be administered the sociometric measures individually.

The investigator will state to each student:

"I am interested in finding out about children's friendships.

I am going to ask you questions about the people you like to be with at Field School. No one at school will see the answers to the questions I ask you. Your teacher will not be allowed to see your answer and the other students will not be allowed to see your answers. But first we need to practice with a rating scale to make certain you understand what the numbers mean."

Students will be given a Likert scale. The investigator will explain the scale numbers by stating:

"Circling the number one indicates you like something the least, and circling the number five indicates you like something the most."

The investigator will then point to the numbers and say:

"Circling the number 1 means you don't like it at all, circling the number 2 means you don't like it, but you don't dislike it as much as when you circle 1. Circling the number 3 means you don't know if you like it or don't like it. Circling number 4 means you like it somewhat, and circling number 5 means you like it very much." When you don't know a person I ask you about, you would circle the #3. If you don't know someone, you wouldn't like or dislike them. Also, if you circle the #3 because you don't know a person, tell me, then I will write DK over the #3.



The investigator will then put a practice Likert scale rating form in front of the child and say:

"Now, rate how much you like to go to school." After the child circles the number, ask him/her, "Now, tell me what that number means."

"Rate how much you like to ice skate."

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